

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method comprising:
receiving, by a computing device, a key matrix having N rows and M columns of matrix keys, where $N \geq 2$ and $M \geq 2$;
for each column of the key matrix, performing, by the computing device, arithmetic operations utilizing matrix keys of at least two selected rows of the key matrix to produce a secret device key which is part of a first set of secret device keys; and
producing in memory of the computing device, by the computing device, a shared secret key based on arithmetic operations on selected secret device keys of the first set of secret device keys, the selected secret device keys being a portion of the first set of secret device keys and being determined based on a first key selection vector received from a recipient digital platform, the shared secret key being capable of providing a secure communication channel between a first digital platform and a second digital platform.
2. (Original) The method of claim 1, wherein the arithmetic operations include modular addition.
3. (Previously Presented) The method of claim 1, further comprising, prior to performing the arithmetic operations,
generating a second key selection vector identifying the at least two selected rows of the key matrix from which to produce the first set of secret device keys.
4. (Previously Presented) The method of claim 3, wherein the second key selection vector is uniquely assigned to a sender digital platform.
5. (Previously Presented) The method of claim 4, further comprising, prior to producing the shared secret key,

receiving the first key selection vector from the recipient digital platform in communication with the sender digital platform; and

analyzing contents of the first key selection vector from the recipient digital platform to determine the selected secret device keys of the first set of secret device keys.

6. (Previously Presented) The method of claim 1, further comprising, prior to performing arithmetic operations on keys of at least two selected rows, dedicating the rows of the key matrix to a first classification; and dedicating the columns of the key matrix to a second classification.

7. (Original) The method of claim 6, wherein the first classification includes digital platforms designed to provide information to other digital platforms.

8. (Original) The method of claim 7, wherein the second classification includes digital platforms designed to receive information from other digital platforms.

9. (Previously Presented) The method of claim 1, wherein the producing of the shared secret key comprises:
analyzing contents of the first key selection vector; and
performing arithmetic operations on the selected secret device keys located in columns of the key matrix identified by the contents of the first key selection vector.

10. (Previously Presented) The method of claim 9, wherein the producing of the shared secret key further comprises:
performing a hash operation on results of the arithmetic operations of the selected secret device keys located in the column of the key matrix identified by the contents of the first key selection vector.

11-27 (Cancelled).